



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/595,279

04/04/2006

Hiraku Akiho

09792909-6676

6663

26263 7590 12/11/2008  
SONNENSCHN NATH & ROSENTHAL LLP  
P.O. BOX 061080  
WACKER DRIVE STATION, SEARS TOWER  
CHICAGO, IL 60606-1080

EXAMINER

TRAN, CHUC

ART UNIT

PAPER NUMBER

2821

MAIL DATE

DELIVERY MODE

12/11/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,279	<b>Applicant(s)</b> AKIHO ET AL.	
	<b>Examiner</b> CHUC D. TRAN	<b>Art Unit</b> 2821	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3,7,12,15 and 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,7,12,15 and 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### ***Allowable Subject Matter***

2. The indicated allowability of claims 3, 7, 12, 15 and 17 are withdrawn in view of the newly discovered reference(s) to Takahashi (USP. 7,405,709). Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 3, 7 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Takahashi et al (USP. 7,405,709).

Regarding claim 3, Takahashi disclose a magnetic core member (4) for an antenna module (1) in Fig. 1 and 2, said member (4) (Fig. 2) being stacked with an antenna coil (11, 12) having a loop-shape (Fig. 1), said member (4) having a first surface facing said antenna coil (Fig. 2), said recess (core member layer) (4A) (Fig. 2) formed into an annular shape sheet formed in a region of the first surface corresponding to the loop-shape of said antenna coil (Col. 13, Line 37),

Art Unit: 2821

wherein said recess comprises a plurality of dimples (soft magnetic powder) (31) formed on the first surface of said member (Col. 11, Line 42) (Fig. 9-12).

Regarding claim 7, Takahashi disclose an antenna module (1) in Fig. 1 and 2, comprising: an antenna coil (11) having a loop-shape (Fig. 1), and a base (substrate) (2) on which said antenna coil is positioned (Fig. 2), said base (substrate) (2) being stacked with a magnetic core member (4) (Fig. 2), said core member (4) having a first surface facing the base (Fig. 2), said first surface having a recess (4A), said recess having an annular shape formed in a region of the first surface (Col. 13, line 37) (Fig. 2), wherein said recess (4A) comprises a plurality of dimples (magnetic powder) (31) formed on the first surface of said core member (Col. 7, Line 12) (Fig. 2).

Regarding claim 15, Takahashi disclose a portable information terminal (1) having a housing including therein a base (substrate) (2) for supporting a loop-shaped antenna coil (11) (Fig. 1), a magnetic core member (4) stacked on said base (2) (Fig. 1), and a metal shield plate (3) stacked on said magnetic core member (Fig. 2) (Col. 4, line 50), said magnetic core member (4) having a first surface (4A) facing the base (2) (Fig. 2), said first surface having a recess (31) (Col. 7, Line 12) having an annular shape formed in a region of the first surface (Fig. 2) (Col. 13, Line 37), wherein said recess (4A) comprises a plurality of dimples formed on the first surface of said core member (Col. 7, Line 12).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2821

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al (USP. 7,405,709) in view of Endo et al (US 2005/0162331).

Regarding claims 12 and 17, Takahashi disclose the antenna module comprising the magnetic core member (4) is formed as a sheet (Takahashi, Col. 13, Line 38) by dispersing magnetic powder (31) of Fe--Si--Al (Takahashi, Col. 5, Line 48) except Fe--Si--Cr. Endo disclose the magnetic powder is Fe--Si--Cr (Endo, [0048]). It would have been obvious to combine the magnetic powder of Endo into the magnetic core member of Takahashi for restricting a variance of a resonating frequency in order to reduce an eddy current loss of Takahashi would have been obvious to one of ordinary skill.

### ***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUC D. TRAN whose telephone number is (571)272-1829. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Owens can be reached on (571) 272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2821

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chuc D Tran/  
Examiner, Art Unit 2821

/Douglas W Owens/  
Supervisory Patent Examiner, Art Unit 2821  
December 6, 2008